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Remarks

The present Office Action follows a Panel Decision of May 8, 2006 to reopen prosecution of the application. All pending claims 34-48 and 51-56 stand rejected, and an objection has been made with respect to the drawings.

Objection to the Drawings

The Office Action objected to the drawings under 37 CFR 1.83(a) on the basis that the drawings were viewed as failing to show "*a profile of said values that decrease in magnitude during application of power,*" as generally featured by independent claims 34, 41 and 47.

This objection is respectfully traversed on the basis that originally presented FIG. 4 clearly shows an exemplary "*profile of said values that decrease in magnitude during application of power*" as claimed.

As discussed previously in Applicant's Response filed November 1, 2005, the profile in FIG. 4 is referred to as a "preprogrammed velocity dependent reference profile 400." The profile 400 is preferably supplied to a DAC 310 to present reference values to a comparator 318 to control the disabling of spindle motor 304. See Applicant's 11/1/05 Response, pp. 6-8; specification, page 4, lines 24-26; page 7, lines 16-18; and page 7, line 27 *et seq.*

As shown in FIG. 4, the exemplary profile 400 is plotted against a motor velocity x-axis and a voltage profile magnitude y-axis. The profile 400 generally slopes down to the right with respect to these axes. Thus, the profile 400 illustrated in FIG. 4 clearly meets the

requirements of §1.83(a) with regard to providing an exemplary "*profile of said values that decrease in magnitude during application of power*" to a load, as claimed.

Reconsideration and withdrawal of the objection to the drawings are respectfully solicited on this basis.

Rejection of Claims Under 35 U.S.C. §103(a)

Claims 34-48 and 51-56 were rejected as being obvious over U.S. Patent No. 4,967,291 to Touchton ("Touchton '291") in view of U.S. Patent No. 6,043,631 to Tsenter ("Tsenter '631"). This rejection is respectfully traversed.

The Applicant agrees that Touchton '291 is deficient at least with regard to teaching or suggesting "*power is removed from a load when the cumulative amount of charge is at least equal to a predetermined value from a profile of said values that decrease in magnitude during application of power to said load,*" as featured by independent claim 34. Tsenter '631, however, fails to make up for this deficiency in the teachings of Touchton '291.

In support of the rejection, the Office Action stated, "*Tsenter teaches when [sic] a profile (fig. 2) of values that decrease in magnitude during application of power to the load.*" Office Action, page 4, lines 14-15. A review of FIG. 2 of Tsenter '631, however, shows that this is not an accurate characterization of the reference.

Tsenter '631 teaches a battery recharger 9 that periodically interrupts the application of charge to a battery so that voltage measurements can be made to assess the charge state of the battery. See e.g., col. 4, lines 23-25 and FIG. 1. Tsenter '631 preferably uses

cyclical timing intervals of 30 seconds of charging current, followed by 2 second (2,000 millisecond, ms) rest periods. Col. 9, lines 42-45.

FIG. 2 of Tsenter '631 shows two such intervening measurement periods, during which initial open circuit voltages V_1 and V_2 and steady-state open circuit voltages $E_{e,1}$ and $E_{e,2}$ are measured. Col. 7, lines 11-14; col. 8, lines 52-59; col. 8, line 66 to col. 9

It can be seen that the values that "decrease in magnitude" in FIG. 2 of Tsenter '631 that were relied upon by the Examiner merely represent decays in open circuit voltage experienced by the battery once the charging current is removed. Contrary to the Examiner's assertion, these decays in voltage fail to teach or suggest a "profile" as claimed.

As noted above, independent claim 34 recites "*power is removed from a load when the cumulative amount of charge is at least equal to a predetermined value from a profile of said values that decrease in magnitude during application of power to said load.*" Nothing in Tsenter '631 teaches or suggests this limitation.

A *prima facie* case of obviousness requires a showing that each of the limitations of the claim are actually taught or suggested by the cited references. *Graham v. John Deere Co.*, 383 U.S. 1 (1966). Since no such showing has been established by the Examiner, the rejection is deemed improper and reconsideration is requested on this basis.

Moreover, there is nothing that would motivate the skilled artisan to combine/modify the respective references to arrive at the claimed combination as set forth by independent claim 34. *In re Bond*, 910 F.2d 831 (Fed. Cir. 1990). The Examiner has found that "recognition of potential adverse conditions" as set forth in the Abstract of Tsenter '631 would somehow motivate the skilled artisan to implement a profile as claimed in the system of Touchton '291.

But as previously pointed out by the Applicant, Touchton '291 provides its own solution to a problem of over velocity by using a fixed reference. A decaying voltage experienced during the recharging of a battery as set forth by Tsenter '631 does nothing to suggest the desirability or even the operability of incorporating a profile as claimed.

The Examiner has thus failed to establish a *prima facie* case of obviousness on this basis as well, and instead has engaged in improper hindsight reconstruction of the claimed invention, using the claims as a blueprint to (unsuccessfully) locate each of the limitations set forth therein, and then offered a motivation stated in the Abstract of the secondary reference to justify the combination. This constitutes clear error reversible on appeal.

Accordingly, the Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 34, as well as for the claims depending therefrom. As the respective references are similarly deficient with regard to the rejections of independent claims 41 and 47, reconsideration and withdrawal of the rejections of these claims, and for the claims depending therefrom, are also respectfully solicited.

Request for Examiner's Interview

The Applicant appreciates the extensive effort that has been extended to the present case, but remains convinced that the claimed subject matter represents a valuable and patentable improvement over the art of record.

The Applicant is accordingly submitting herewith a request for a telephonic interview with the Examiner, in hopes of clarifying various issues relating to the objection to the drawings and the obviousness rejection of the claims. It is believed that such interview would significantly advance the present prosecution of the case.

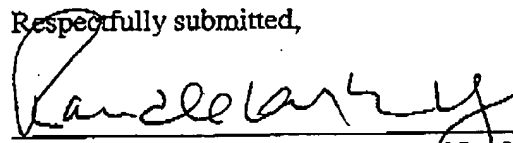
Conclusion

This is intended to be a complete response to the Office Action mailed August 14, 2006. The Applicant respectfully requests reconsideration and allowance of all of the claims pending in the application.

The Examiner is invited to contact the below signed Attorney should any questions arise concerning this response.

Respectfully submitted,

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